

ABSTRACT

The gas oil fraction hydrotreatment process of the invention is characterized by using a gas oil fraction with a sulfur content of 0.8-2 % by mass and a total aromatic content of 20-35 % by volume as the feed oil and subjecting the feed oil to hydrotreatment in the presence of a hydrogenation catalyst comprising at least one metal from among Group 6A metals and at least one metal from among Group 8 metals as active metals, and under reaction conditions with a reaction temperature of 330-390°C, a hydrogen partial pressure of 12-20 MPa and a liquid hourly space velocity of 0.1-1 h^{-1} , to obtain an ultralow sulfur and low aromatic gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume. This hydrotreatment process allows production of a "zero sulfur" and "zero aromatic" gas oil fraction in an efficient and reliable manner without provision of special operating conditions or equipment investment.

10. An ultralow sulfur and low aromatic gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume, characterized by being obtained by a process according to any one of claims 1 to 9.

5 11. A gas oil composition characterized by comprising an ultralow sulfur and low aromatic gas oil fraction having a sulfur content of not greater than 1 ppm by mass and a total aromatic content of not greater than 1 % by volume, and obtained by a process according to any one of claims 1 to 9.